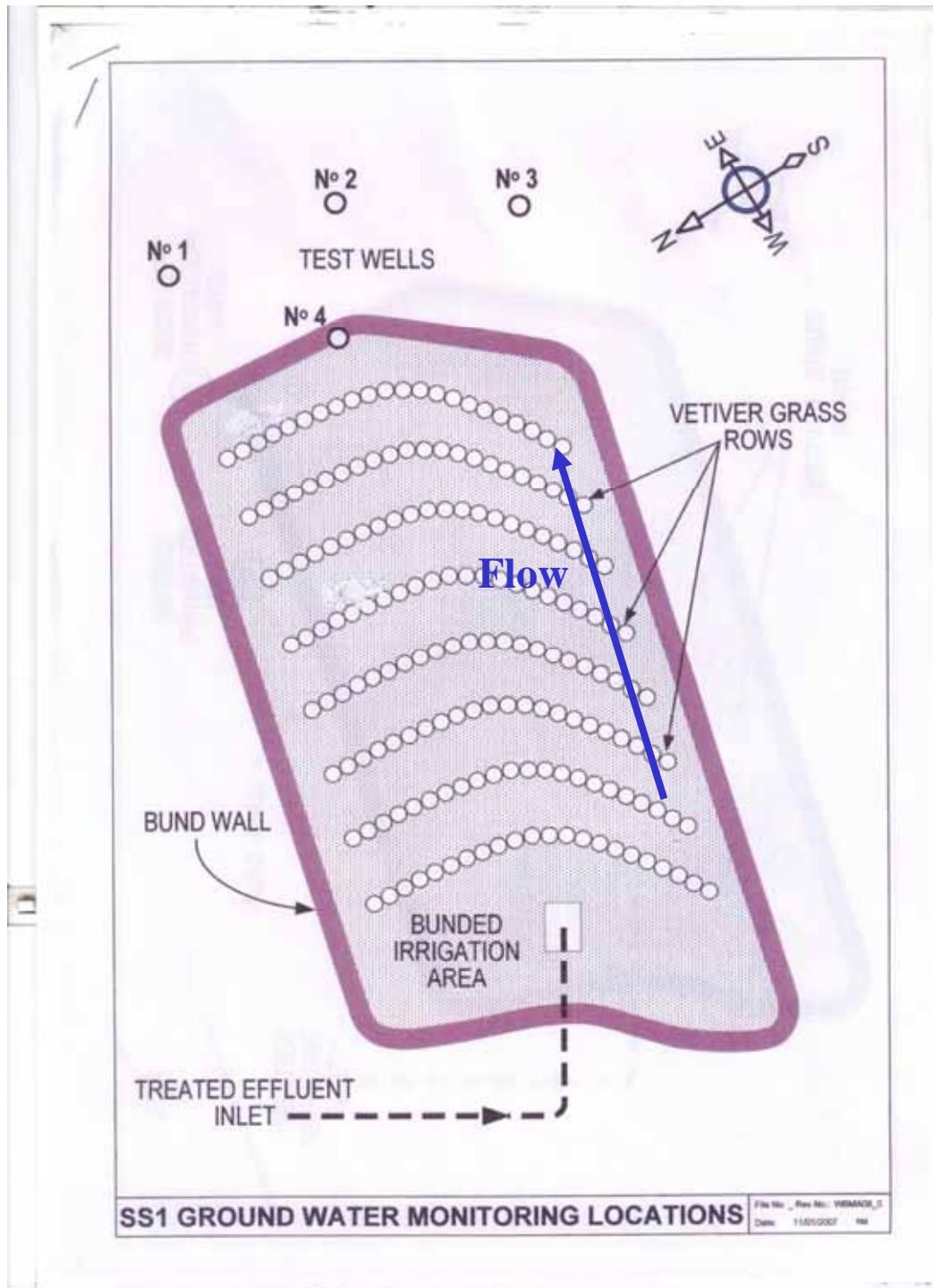


**EFFECTIVENESS OF THE VETIVER SYSTEM IN
TREATING SEWAGE EFFLUENT**

*Vetiver was planted to dispose sewage effluent from a
small recreational airfield in Queensland, Australia*

Paul Truong



Planting Design

- 8 rows of vetiver
- 10m long each
- Inter-row spacing 1m
- Plant spacing 5 plants/ m
- Total plants 400
- Gravel trench 60cm deep
- Land area 100 sqm
- Bund wall W54 X H30cm

First year: The first few rows have excellent growth, but the last 2 rows are very poor due to lack of effluent

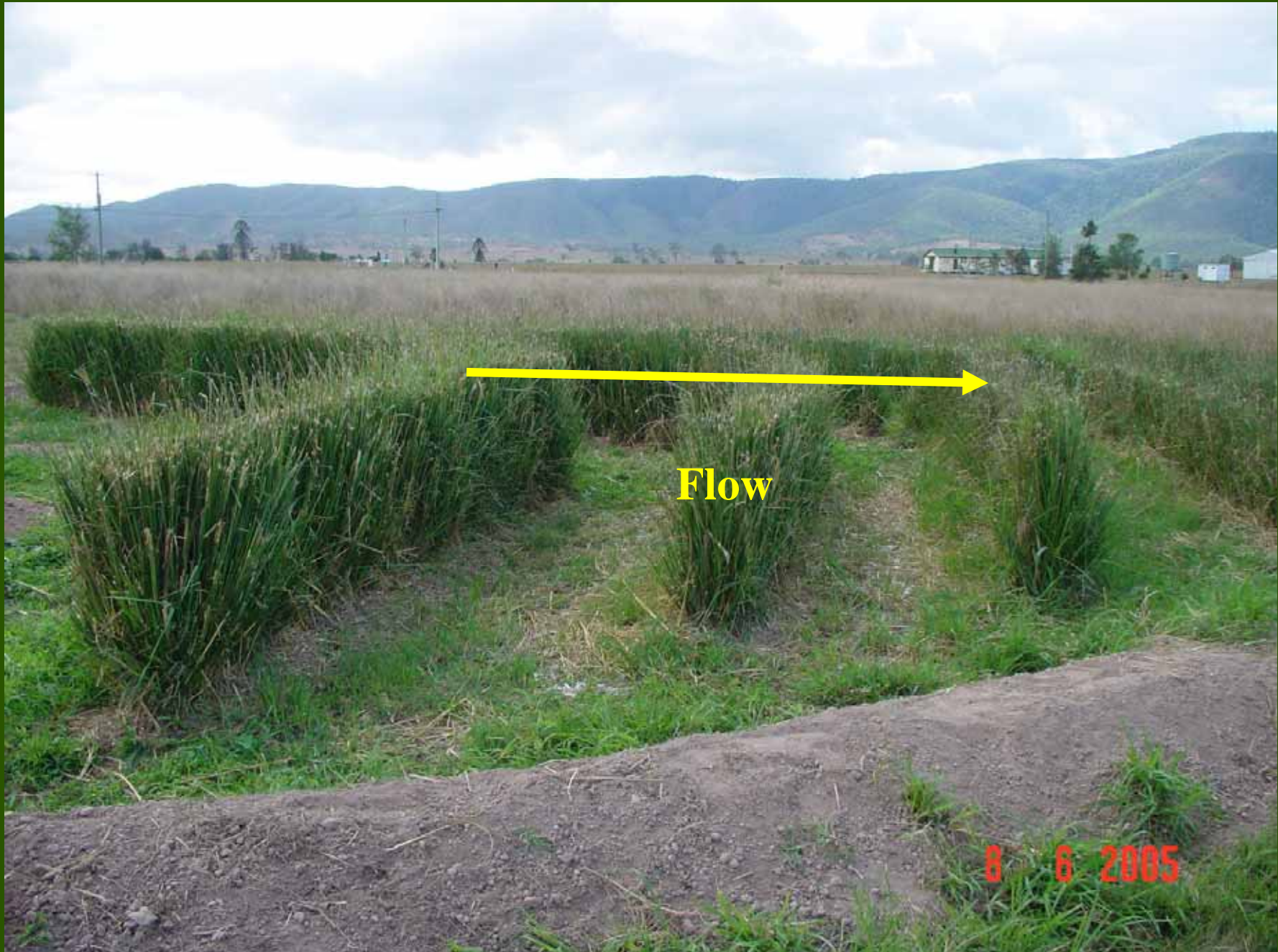


Good growth

Poor growth

8 6 2005

The first few rows have excellent growth



The last few rows have very poor growth , due to lack of effluent



Third year: Excellent growth, exceeding 2m.



Cutting down to 50cm every 3 months





**Effluent
inlet**

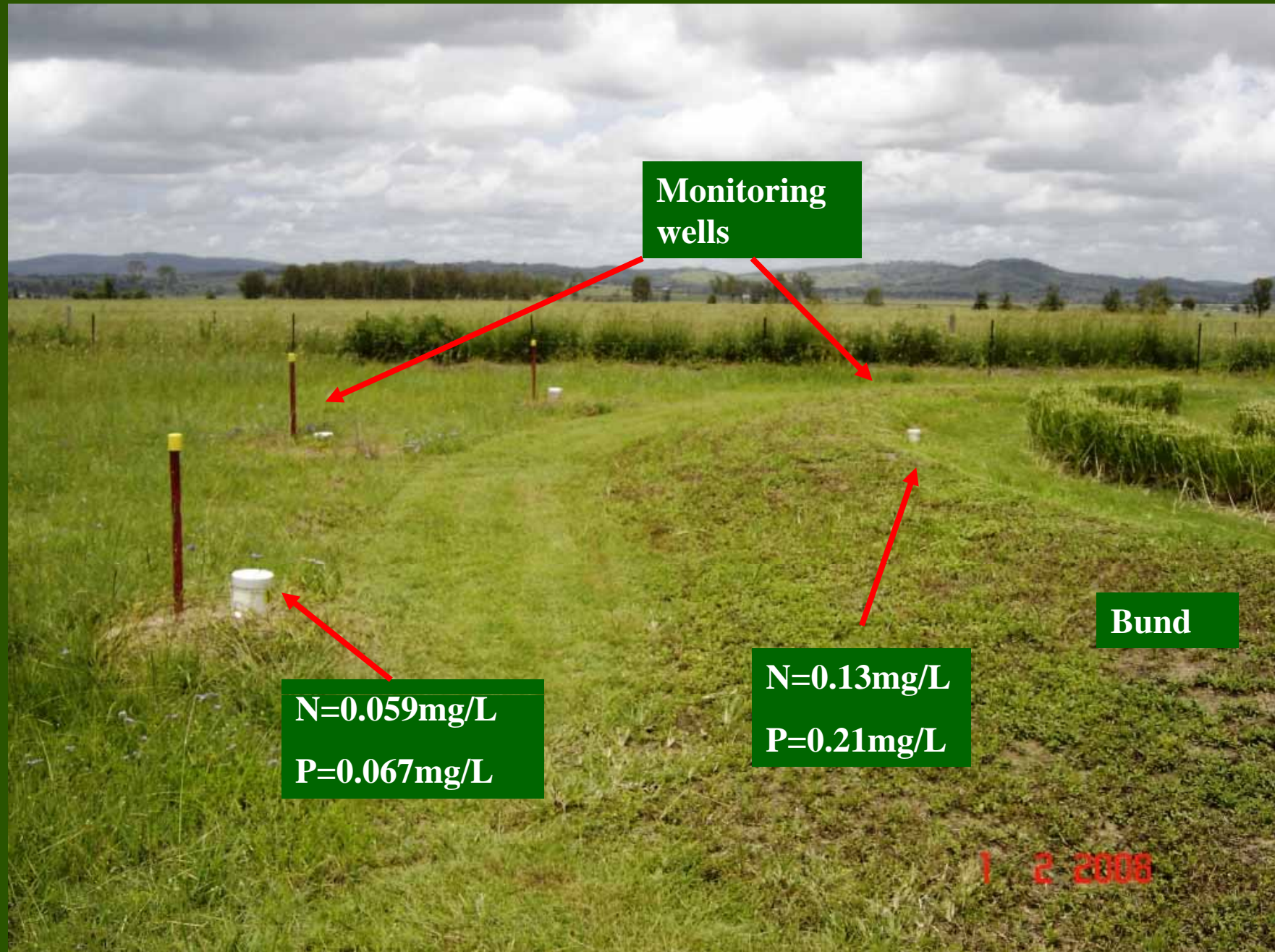
1 2 2008



Properly maintained, note no weed in or between hedges



Monitoring wells and nutrient levels



Hay for mulch or fodder





Better growth

Poorer growth

1 2 2008

INPUT

Average daily flow: **1 670L**

Average total N: **68mg/L**

Average total P: **10.6mg/L**

Average Faecal Coliform: **>8 000**

SUMMARY

OUTPUT

Average daily flow: **Almost Nil***

Average total N: **0.095mg/L**

Average total P: **0.138mg/L**

Average Faecal Coliform: **<10**

*** Only flow after heavy rain**

VETIVER

This grass is being used as a low impact alternative to managing effluent.

The increased uptake rate of Vetiver reduces odours, leakages and contamination of the subsoil and water table.

Thank You

1 2 2008